532nm pulsed laser system with an attenuator with adjustable energy in non-ablative levels (< 60mJ).

- Wavelength: 532nm
- Energy: <60 mJ per pulse
    - This energy requirement will ensure that the material is not ablated (destroyed) in the process of generating ultrasonic waves
- Variable attenuator
    - A variable attenuator is required to adjust the energy output of the device, and shall also have rs232 control.
- Beam diameter: 4mm - 5mm
    - The beam diameter will help control the energy density delivered to the material by the laser. If the diameter is too big the energy will be spread out over too large of an area to create the thermal shock that generates ultrasonic waves. Too small and the energy will overcome the damage thresholds of the material and ablate.
- Q-switched pulsed laser
    - Laser shall use Q-switching to enable quick laser pulses.
    - The minimum pulse rate is a single pulse, but there is no requirement for maximum repetition rate.
    - Pulse duration shall not be any smaller than 4 ns and no longer than 8 ns
- Size: the laser itself shall be compact, no more than 1.5’ long and 5” wide with modules attached. No restrictions on size of power supply or cooler.
- Control options: RS232
- Shall include a wavelength separator module or have it integrated